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Prescription Boxes

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Prescription Boxes

A Thesis Submitted to

the Faculty of the University of North Georgia

in Partial Fulfillment

of the Requirements for the Degree

Bachelor of Science in Nursing

with Honors

Chloe Gedney

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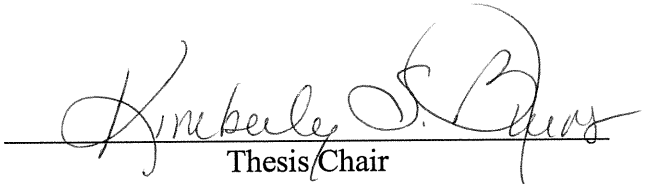
Accepted by the Honors Faculty

of the University of North Georgia

in partial fulfillment of the requirements for the title of

Honors Program Graduate

Thesis Committee:



Thesis Chair

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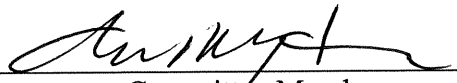

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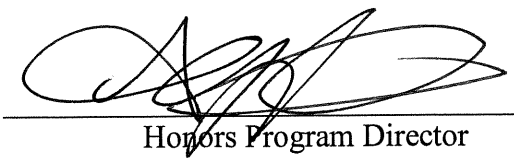

Honors Program Director

Introduction

Type 2 diabetes is a disease that is chronic and difficult to manage that millions of Americans must learn to live with each day. Many people with type 2 diabetes have limited knowledge of the pathophysiology of the disease and factors that affect its progression. Guidance from healthcare in choosing the right diet and amount of exercise would be beneficial to improving the quality of life of patients living with this chronic disease. Education materials and opportunities are less effective in underserved populations due to factors such as the cost of transportation and fuel to clinics, the absence of Internet access to helpful educational websites, and the cost of food (Jessee & Rutledge, 2012). Community-involved clinics such as the Community Helping Place (CHP) Free Clinic in Dahlonega, GA have noticed this gap in knowledge and education and have implemented changes to benefit the population of underserved patients with diabetes in Dahlonega.

Paula Payne, the medical director of the clinic, obtained a grant in the fall of 2017 to supply patients of the CHP Free Clinic with "Prescription Boxes" that contain foods conducive for leading a healthy lifestyle with diabetes. Paula requested the aid of medical staff to implement the project. Kim Burns, a nurse practitioner who works at the CHP Free

Clinic, and I volunteered to assist Paula in this project. I met with Paula to discuss the project and learn about the population and the project. We reviewed the tools that she planned to implement and made changes in order to make the tools easier for patients to complete. We discussed that I would be the one implementing the education and tracking their progress throughout the project. After revision of the teaching materials, I met with each of the five patients individually once a week for four weeks. We went over the basics of diabetes, discussed current diet and exercise, and created goals for each new weekly meeting.

Significance

The short-term goals of the Prescription Boxes program are to help these five patients obtain a better level of health, to promote diabetes management, and improve their daily quality of life. The long-term goal of this program is that patients will be involved in the management of their health care and gain knowledge of their health through us giving them the tools and education to empower them to control their condition. It is essential to assess each patient's level of understanding of their disease and gauge their perceived and actual barriers to education and maintenance. Through active listening and formulating individual plans of care, the goal is to make an impact in each of these patient's lives by educating them where they lack understanding and encouraging them to make positive changes.

Literature Review

Diabetes is a challenging, chronic disease that is burdensome for both patients and their families. This disease is the leading cause of microvascular complications, macrovascular complications, and amputations. Notably, nearly 10% of the US population

has been diagnosed with diabetes (Haesun, Thompson, Evans Kreider & Vorderstrasse, 2017). Because of the complexities of this disease, patients with type 2 diabetes mellitus often face many difficulties when it comes to understanding and treating their disease. In underserved populations, these factors are further complicated by low income, limited education regarding self-care, diet, and complications related to diabetes. Health care providers must recognize these unmet needs and take the time to educate patients, provide referrals to resources, and ensure a mutual understanding to improve outcomes and quality of life.

The first step toward successfully managing type 2 diabetes is having a knowledge base adequate for understanding treatment interventions and implications. To make informed decisions and manage care and risk factors, patients must be able to understand the fundamental aspects of what diabetes is. This includes symptomology of the disease, common comorbidities, and possible complications. Medication adherence improves as knowledge progresses, thereby improving overall patient health (Fan, Lyons, Goodman, Blanchard, & Kaphingst, 2016). Though education is available and is a service that can be reimbursed, patients often do not seek these services. The American Diabetes Association recommends that patients should receive diabetes self-management education (DSME), diabetes self-management support (DSMS), and medical nutrition therapy (MNT) at diagnosis and as needed after that (Funnell & Piatt, 2017). Although these programs are made available to patients with type 2 diabetes, underserved populations have a hard time accessing these resources. Barriers that affect this population's access include fuel cost, time, family, work, and transportation (Jessee & Rutledge, 2012). A study performed by Jessee and Ruteledge (2012) found that 42% of their participants cited the shortage of fuel

as a significant barrier to attending visits. This barrier calls for intervention by a multidisciplinary team composed of a community resource that can aid in transportation. Once access to resources is obtained, these programs are patient-centered and are aimed at helping patients become active participants in their care and improving their overall quality of life. Not only are these programs beneficial for improving knowledge, but they can also reduce the costs that occur with hospitalizations and complications because the education provides prevention knowledge of complications from diabetes, therefore preventing hospitalization (Jessee & Rutledge, 2012; Palmer 2017). The content of these interventions is structured by the American Diabetes Association and implemented by healthcare providers in the clinic and by referral.

Once a general knowledge base is established, teaching can include other aspects of living with diabetes, such as diet and nutrition. Diet is one of the manageable aspects of diabetes care. In fact, up to 90% of type 2 diabetes cases can be prevented if people follow a healthy lifestyle and diet (Ley et al., 2016). Assessing patients' readiness to change (RTC) their diet could potentially aid healthcare professionals in intervening in high-risk populations (Knight, Stetson, Krishnasamy, & Mokshagundam, 2015). Research implemented by Knight et al. in 2015 intended to assess the usefulness of identifying RTC included participants from nearby medical clinics. The researchers used RTC to evaluate for knowledge of dietary behaviors and self-efficacy. The study concluded that assessing RTC allows healthcare professionals to better understand patient perspectives toward diet. Some food groups that place patients at a higher risk for type 2 diabetes include red meats, refined grains, and sugar-sweetened beverages. Ley et al. recommend a diet including higher intakes of fruits, vegetables, whole grains, and legumes to lower the risk for type 2

diabetes. Carbohydrate counting or utilizing the modified plate method for nutrition can also improve glycemic control (Bowen et al., 2016).

Complications from type 2 diabetes can be significantly reduced with proper care and education. Overcoming barriers such as lack of knowledge about diabetes and nutrition as well as a lack of resources like transportation are of utmost importance. Research conducted with participants living in rural areas of Hawaii found that telehealth might be a solution for lack of transportation, citing it as a "potentially promising strategy for reaching these small, remote/rural communities with complex diabetes-related health problems" (Ko, Delafield, Davis, & Mau, 2013). The team researching telehealth found a need for increased access to care, so rather than excluding these participants from the study, they fulfilled that demand in an alternative way through telehealth. Patient-centered care and working alongside the patient to accommodate his/her needs are common themes in the literature cited above. A collaborative effort among providers and patients results in improved patient understanding, adherence to interventions, and ultimately better care of the patient.

Project Plan

The "Prescription Boxes" project was implemented with the assistance of the director of the free clinic. The director provided proposed learning materials, meeting itineraries, recipes that were modified to better fit the population, and scheduling for the patient appointments. At the first meeting, patients were oriented to the program and we discussed their goals and plans for each session (see Appendix B). The patients' self-identified primary goals included staying off of insulin injections, losing weight, and leading a healthier life to live longer. Various assessment tools to aid us in formulating their plan of

care were completed by the patients (see Appendices A, C, & D). The first meeting focused on learning about the current health knowledge status of the patients and making short-term goals for week 2. Assessment tools and diets were reviewed with each patient. The assessment tools address current knowledge of diabetes care and management. Each patient's current medications were examined, and the patient was educated on the indications, mechanism of action, possible side effects and the importance of adherence. Patients were given the contact information for the food bank in order to arrange pick up of their prescription food box. Patients were encouraged to pick up their boxes as soon as possible in order for them to begin making changes to their diets right away. Upon completion of the first meeting, patients were given a food journal (see Appendix E) to write their daily intakes and blood sugar log (see Appendix F) to track values daily.

During the second week, the completed blood sugar logs and food journals from the prior week were reviewed and new goals were formulated for the following week. Current habits were examined, and alternatives were suggested for some of the foods that the patient had recorded in the food journal. The blood sugar logs revealed significant changes in the more motivated patients. Information about preferred types of exercise was gathered and dedication to leading a more active lifestyle in order to feel positive changes was encouraged. Some changes that patients agreed to make include beginning to exercise at least three days per week, reading food labels to eat appropriate serving sizes, and taking daily blood sugars. One problem identified by a patient was a lack of interest in breakfast foods, which causes her to resort to eating cereals high in carbohydrates. The patient was provided with higher protein and lower carbohydrate alternatives to high carbohydrate breakfast cereals. Another problem expressed by a patient was an overall

lack of knowledge of diabetes. The patient who identified lack of knowledge of the disease process requested an in-depth discussion of the disease and its implications, so this was added to the schedule for week three. As for exercise, each patient was encouraged to do some reflection and exploration to find out what kind of exercise they enjoyed. However, most of the patients stated neuropathy, joint pain, shortness of breath, and back pain were significant barriers to many forms of exercise. Because many patients had concerns about these barriers, education on exercises that are possible with the barriers stated by the patients was planned for the following week. At the end of the meeting, personal goals were discussed for week three.

On week three, substantial changes in motivation and increased moods were noted. By this week, the patients had been given their first Prescription Box and had prepared the recipes provided. Some patients were beginning to see weight loss and a decrease in blood pressure. Patients reported having more energy and feeling like they were beginning to gain control over their type 2 diabetes. Breakfast recipes were provided for the patient who said that she did not like typical breakfast foods and she stated that she was excited to try them out. All five patients were provided with an exercise packet with various exercises, so patients choose which movements were compatible with their ability to implement them. Two of the patients met in the waiting room and decided to enter a gym membership at the same location and hold each other accountable for exercising. As for the patient requesting fundamental education on diabetes, teaching was provided on the mechanisms of blood sugar in relation to the pancreas and the effects that diabetes can have on other organs and body parts. This week showed that patients were genuinely becoming invested in their

health and making the necessary changes. They saw positive results from their efforts and that was becoming a significant factor in their overall successes.

The fourth and final meeting began with congratulations for completing the program. Only two of five patients made it to their appointment on the last day. The other three were unable to come to the clinic due to inability to take off work and lack of gas money. As for the patients that came, long-term goals were set, such as maintaining their new routines and making healthy diet choices. Because accountability was a substantial factor for adherence, scheduling some checkpoints at the clinic was discussed. These checkpoints were identified as a patient need to Paula, the director of the clinic, and she agreed to continue meetings upon completion of the program. At the end of this meeting, the patients were asked to fill out the evaluation tool again (see Appendix G) to see if the education had increased their knowledge and confidence in their diabetes care.

Evaluation

Two of the five patients (40%) that participated in the program came to and participated in all four meetings. Progress was compared from the first to last meeting and discussed with patients in the final meeting. The lab values and relevant vital signs that are shown in chart 1 below exhibit their progress. The names of the patients discussed and displayed in chart 1 are aliases used to protect patient privacy. The blood glucose levels were random blood sugars that were per patient report.

Patient	Visit #	Blood Pressure (mmHg)	Heart Rate (bpm)	Weight (lbs)	Most recent Blood Glucose (mg/dL)
Carrie	1	126/74	86	252	172

Carrie	4	118/70	82	248	123
Sarah	1	142/88	88	196	203
Sarah	4	134/80	80	189	132

Chart 1: Carrie and Sarah: comparison of first to last visits

Although the most visibly improved aspect of the patients was their physical well-being, the evaluation forms that Carrie and Sarah completed at the beginning and the end of the program are also examples of their improved relationship to food and exercise. The patients were asked to rate their knowledge and confidence of certain tasks related to diabetes on a scale of one to ten. These documents are available in Appendix H for Carrie. The numbers circled in red ink show the second rating during the final meeting. Overall, both patients reported improved confidence in completing tasks affected by having type 2 diabetes and improved knowledge of the disease, blood sugar levels and control, and the role of exercise in diabetes. In the last meeting, we discussed the difficulties that each patient faced throughout the program and created long-term goals. These two patients were the most motivated out of the original five to make positive changes in the care of their disease. The other three patients missed one or more meetings due to various reasons. One of the patients moved out of state to Florida after two meetings. Another patient often missed meetings stating that she did not have enough fuel to come to the clinic. Noncompliance was an issue with the fifth patient. This patient would not come to scheduled clinic visits or answer the telephone when called about her whereabouts, and she did not keep current logs of her blood glucose levels or food journals. Subsequently, these three patients did not make much progress in the program as compared to Carrie and Sarah Overall, the patients who adhered to the advice and plans laid out during the first

meeting were successful in gaining a knowledge base adequate for understanding treatment interventions and implications of type 2 diabetes. They demonstrated enhanced knowledge of nutrition, diabetic medications, diabetes care, and were able to obtain a better level of health and improve their daily quality of life. When patients are educated on their diseases and how to care for them, they are able to assume the role of being an active participant in their care. Through providing education and resources to the participants in the Prescription Box program, a sense of empowerment was instilled in these patients.

Discussion

The 40% of patients that were successful in the Prescription Box Program were successful because of the utilization of the resources provided to them and their dedication to improving their health. The reported increase in knowledge of diabetes and improved physical states are both testaments to the success of the program when appropriately implemented. Although the reported increase in knowledge is substantial to the analysis of effectiveness of the program, a more rigorous method of evaluating learning may benefit outcomes. These methods could include the teach-back method and quizzing. Patients could be asked to teach the provider about the mechanisms of type 2 diabetes and subsequent effects on the body, the purpose of prescribed medications, and suitable or unsuitable diet choices. This would promote discussion or re-teaching of subjects where patients may need additional education. Also, a pre-quiz prior to teaching and a post-quiz after teaching that are at an appropriate reading level for the population could also provide valuable data in evaluating effectiveness of teaching.

The program is meant to be followed by attending one meeting per week for four weeks that serve as educational sessions and check-in points, choosing exercises that are

feasible for the patient, and agreeing to make dietary changes that will lower their blood glucose levels. Because this was the first run of this program, I would consider 40% of patients achieving their personal health goals to be successful. However, some improvements could be made to the program to maximize time and further encourage commitment to making beneficial lifestyle changes. For instance, creating a group meeting time for patients rather than having one on one visits may be advantageous to the Prescription Box Program for multiple reasons. Group meetings would provide these patients with a peer group composed of other patients with type 2 diabetes. Because they are struggling with managing the same disease, they may be able to provide support and exchange solutions for common problems experienced by this population. The provider of the group meetings would designate a weekly day and time for patients to attend and this scheduling would prevent the provider from waiting on absentee patients to arrive for appointments. Another modification to the program could be to change some of the products that are in the food boxes to the patients. Items such as canned corn, pasta, and applesauce are high in carbohydrates and are not conducive to a diabetic diet. It is challenging to encourage healthy food choices when the food that we provide will not benefit the blood sugar control we teach.

Continued exploration of the health of people with type 2 diabetes could be accomplished by continuing the Prescription Box Program under the new group meeting format and change in box contents. If the updated program can be sustained through the CHP free clinic, we may see the number of positive outcomes improve, and then more data will become available on the effects of education on type 2 diabetes management. Because type 2 diabetes is a chronic disease, follow up will be an essential intervention for these

patients. In the final meeting with Carrie, she mentioned that part of her success was because of the accountability of the weekly meetings. She said that during the week she would weigh her options for a food choice or exercise and if it meant that she felt obligated to tell me that she "fell off the wagon" that week then she would not make the "bad choice." This comment demonstrates the value of accountability and supports and shows that the implementation of a monthly meeting for patients who have successfully completed the program may be beneficial to provide education if questions arise and continued encouragement.

As discussed previously, the underserved population of patients with 2 diabetes faces significant barriers when it comes to learning how to adequately manage their disease and maintain a lifestyle consistent with proper blood sugar control. Although education and provision of food boxes help patients overcome some of these barriers, other obstacles such as lack of transportation and inability to undertake some exercise regimens cannot be accomplished in the scope of this program at this time. Despite the barriers that extend past the reach of the program, the impact of improving the lives of patients and helping them gain more control of their disease will be considered successful. Conclusively, if the Prescription Box Program is continued, it has potential to improve the lives of many patients living with type 2 diabetes.

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Appendix A

Medical History Questionnaire

Legal Name:_____ Date of Birth:_____

Marital Status: Single ( ) Married ( ) Widowed ( ) Divorced ( ) Email Address: _____

Occupation: _____ Family Doctor Name/Location: _____

Do you drink alcohol? Y ( ) / N ( ) Do you smoke? Y ( ) / N ( ) How much per day? _____

Did you ever have any sexually transmitted diseases? (AIDS, Chlamydia, etc …) Y ( ) / N ( )

Do you drive? Y ( ) / N ( ) Does your vision limit your daily activities? (driving, reading, working, etc.) Y ( ) / N ( )

Briefly describe the reason for your visit: _____

_____

List ALL **Drug Allergies** and their reactions:

_____

_____

_____

_____

_____

Are you allergic to TAPE / LATEX ? Y ( ) N ( )

List ALL **Surgeries** you have had including ALL **EYE Surgeries & Laser Treatments:**

_____

_____

_____

_____

_____

MEDICAL HISTORY: Do you have any of the following health issues? If so, please explain.

Constitutional (sudden weight loss/gain, fever, weakness) _____

Ear/Nose/Throat (hearing loss, ulcers, infections) _____

Cardiovascular (high blood pressure, heart disease, high cholesterol, stroke) _____

Respiratory (shortness of breath, asthma, emphysema, TB, COPD) _____

Gastrointestinal (diarrhea, indigestion, nausea/vomiting, hernia) _____

Genital, Kidney, Bladder (frequent urination, prostate, kidney stones) _____

Muscles, Bones, Joints (arthritis, back pain, stiffness, join pain, gout) _____

Skin (rashes, moles, skin cancer, lesions/bumps) _____

Neurological (Parkinson's, Alzheimer's, chronic headaches, seizures) _____

Psychiatric (anxiety, depression, bipolar disorder, etc.) _____

Endocrine (diabetes, thyroid conditions) _____

Blood/Lymph (bleeding, anemia) _____

Immunological (recurrent infections, herpes simplex, shingles, lupus) _____

Eye Diseases (glaucoma, cataract, AMD, lazy eye, retinal detachment) _____

Appendix B

CHP Free Clinic

Medication and Nutrition Awareness Program

Meeting 1

Goal: Learn patient's understanding of his/her disease and medications, and understand patient's dietary choices.

- Record Vitals (BP, P, BS, Cholesterol, Weight)
- Give patient questionnaire to determine the level of patient's knowledge about the disease, the risk or effects of the disease, and nutritional concepts.
- State the problem (eating fast food, drinking caffeinated drinks, not exercising enough, etc.)
- Determine if any of the patients have any goals set. (weight loss, lowering blood sugar levels, etc), set 1 to 2 measurable goals.
- Help establish a plan and food diary so that each patient can successfully keep track of their diet and obtain their goals.
- Give patients a copy of recipes and discuss other healthy recipes.

Meeting 2

Goal: Provide information on disease management and set goals. Accountability.

- Record Vitals. Compare and discuss results. Review goals from meeting 1 and make suggestions as necessary.
- Present information on patient's disease (HTN, DM, Obesity, etc) and the risks that are associated with each.
- Explain how each medication affects the system, how they interact, provide suggestions to try to get off certain medication if lifestyle changes (nutrition and exercise are achieved)
- Review diet and food diary. Make adjustments if necessary
- Set New goals. (weight, more water, increase exercise, quit smoking, etc)
- RX Box 1 provided.

Meeting 3

Goal: Accountability to goal setting.

- Record and discuss vitals.
- Compare the results from meeting 3 to meeting 1 and 2 see if there is any progress.
- Review goals from previous meetings and discuss what is working and what is not.
- Review diet and food diary.
- Continue to encourage patient on progress made and to stay focused on goal.
- RX Box 2 provided.
- Provide new recipes with RX Box 2 staples.

Meeting 4

Goal: Accountability and encouragement. Set patient for long term success.

- Review, record and discuss vitals. A1C and Cholesterol
- Compare the results from meeting 4 to meeting 1, 2, and 3 to see if there is any progress.
- Review goals.
- Congratulate the patients for completing the program and discuss the importance of maintaining a diet and exercise program throughout the rest of their lives.
- Complete the graduation ceremony, and celebrate with a healthy party with family members. (Smoothie, or healthy dessert to share, give a certificate of completion)
- Provide patient with Athletic Center gift certificate for completing program.

Appendix C
Healthy Eating for Life Questionnaire

1. What is the biggest reason for your desire to control your diabetes?

2. When were you diagnosed with diabetes?

3. Do you have a family history of diabetes?
   Yes ☐ No ☐

4. Have you been able to control your diabetes in the past?
   Yes ☐ No ☐ Sometimes ☐

5. If yes to #4, how did you control it?

6. Who do you live with?

7. Do you live in an apartment or private home?

8. Are they supportive of your diabetes control?
   Yes ☐ No ☐ Sometimes ☐

9. What are your favorite foods?

10. When you eat away from home, what restaurants or places do you go to?

11. What food would be most difficult for you to give up?

12. Have you ever read labels of food?
    Yes ☐ No ☐ Sometimes ☐

13. Do you like to cook?
    Yes ☐ No ☐ Sometimes ☐

Appendix D

My Activity Level (Circle the statement that applies to you)

1. I am very active. (I exercise at least 60 minutes per day at moderate to high intensity.)
2. I am moderately active. (I exercise at least 150 minutes per week at moderate intensity or have an active
3. I am active sometimes. (I exercise about 60 minutes per week.)
4. I struggle to get regular exercise. (I am not able to be active *every* week.)

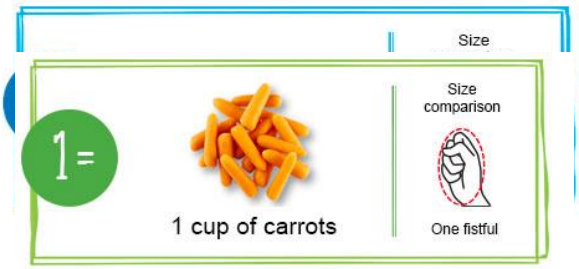
Assessing My Habits (Circle Yes or No)

1. Do I often skip breakfast? Yes No
2. Do I eat most meals out rather than preparing foods at home? Yes No
3. Do I feel like I often overeat? Yes No
4. Do I buy organic or local food because I think it is better for the environment? Yes No
5. Do I drink a lot of empty-calorie beverages (sports drinks, sodas, alcohol)? Yes No
6. Is one of my top priorities to keep food costs low? Yes No
7. Do I wish to be more physically active? Yes No

Food Intake:

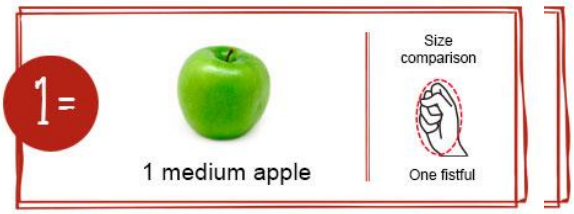
Examples of servings from each food group are shown below. Please refer to these when answering the questions at the bottom of this section.

Dairy:

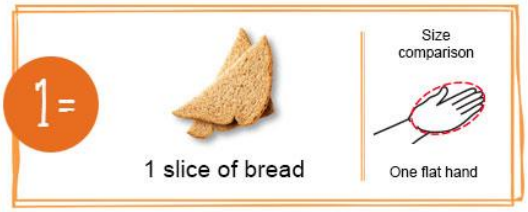


Vegetables:

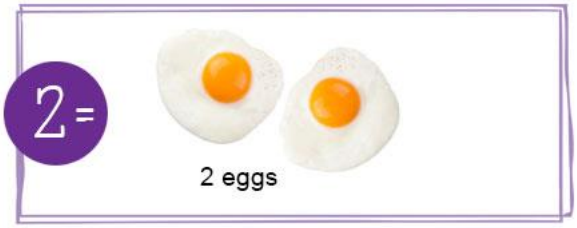
Fruit:



Grains:



Protein:



Empty-calorie Foods: contain lots of calories and little/no nutritional value

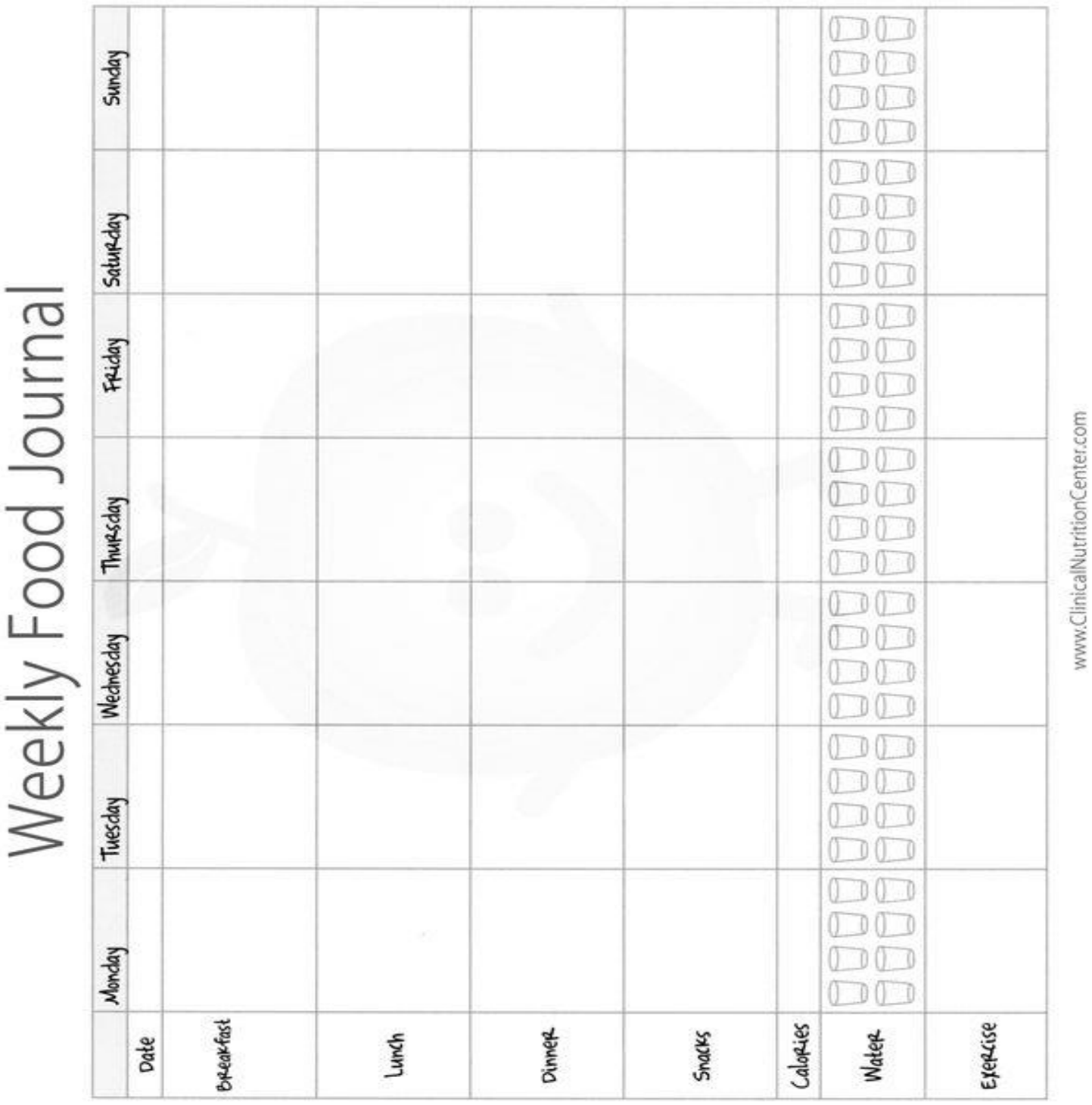
Examples of empty-calorie foods:
Sweets: Candy, Cookies, Cake, Pie, Donut.
Beverages: Fruit drinks, Soda, Sports drinks, Alcohol, Beer, Wine.
Salty: Bacon, Beef jerky, French fries.
Condiments: Jelly and jam, Mayonnaise, BBQ sauce, Ketchup, Salad dressing.

In one day I usually eat the following amount from each food group:

___ **cups dairy** ___ **servings grains**
___ **cups vegetables** ___ **servings protein**

___ cups fruit **___ servings empty calorie foods**

Appendix E



Appendix F

Blood Glucose Log

Date	Breakfast	Lunch	Supper	Bedtime	Notes

Appendix G

Diabetes Knowledge

Circle one answer for each line

1. How do you rate your understanding of:	**Poor**		**Good**		**Excellent**
a) overall diabetes care	1	2	3	4	5
b) ways to cope with stress	1	2	3	4	5
c) meal plan for blood sugar control	1	2	3	4	5
d) the role of exercise in diabetes care	1	2	3	4	5
e) medications you are taking	1	2	3	4	5
f) how to use the results of blood sugar monitoring	1	2	3	4	5
g) how diet, physical activity, and medicines affect blood sugar levels	1	2	3	4	5
h) prevention and treatment of high blood sugar	1	2	3	4	5
i) prevention and treatment of low blood sugar	1	2	3	4	5
j) prevention of long-term complications of diabetes	1	2	3	4	5
k) taking care of your feet	1	2	3	4	5
l) benefits of improving blood sugar control	1	2	3	4	5

How sure are you?

Having a condition like diabetes means doing different tasks and activities to manage your health (**Circle** the number that corresponds to your confidence that you can do the tasks regularly at the **present time**.)

How confident are you that you can,

2. do all the things necessary to manage your condition on a regular basis?

Not at all confident	1	2	3	4	5	6	7	8	9	10 C ompletely confident

3. keep stress and worry from interfering with the things you want to do?

Not at all confident	1	2	3	4	5	6	7	8	9	10 C ompletely confident

4. follow your meal plan when you have to prepare or share food with other people who do r have diabetes?

Not at all confident	1	2	3	4	5	6	7	8	9	10 C ompletely confident

5. choose the appropriate foods to eat when you are hungry (for example, snacks)?

Not at all confident	1	2	3	4	5	6	7	8	9	10 C ompletely c onfident

6. exercise at least 15 to 30 minutes a day, 4 to 5 most days of the week?

Not at all confident	1	2	3	4	5	6	7	8	9	10 C ompletely c onfident

7. know what to do when your blood sugar level goes higher or lower than it should be?

Not at all confident	1	2	3	4	5	6	7	8	9	10 C ompletely c onfident

8. judge when the changes in your health mean you should visit the doctor?

Not at all confident	1	2	3	4	5	6	7	8	9	10 Completely c onfident

9. control your diabetes so that it does not interfere with the things you want to do?

Not at all confident	1	2	3	4	5	6	7	8	9	10 C ompletely confident

Health Behavior

10. How often have you been told to check your blood sugar?

_____

11. How often did you follow that schedule for checking blood sugar during the past week?

- ☐ None of the time
- ☐ Some of the time
- ☐ A good bit of the time
- ☐ All of the time

12. What type of meal plan have you been told to follow to manage your diabetes?

- ☐ Small frequent meals
- ☐ Food Guide Pyramid
- ☐ Plate Method
- ☐ Counting Carbohydrates
- ☐ Five a day
- ☐ Other (please specify) _____

13. Thinking about your meal plan, how often did you follow this plan during the past week?

- ☐ None of the time
- ☐ Some of the time
- ☐ A good bit of the time
- ☐ All of the time

14. During the past week, how often did you participate in regular exercise, and for how long did you exercise each time?

Number of times _____
Length of time _____
Type of exercise _____

15. What do you find to be the hardest part of living with diabetes?

_____
_____
_____
_____

Appendix H

D.C.

How sure are you?

Having a condition like diabetes means doing different tasks and activities to manage your health. (**Circle** the number that corresponds to your confidence that you can do the tasks regularly at the **present time**.)

How confident are you that you can,

2. do all the things necessary to manage your condition on a regular basis?

Not at all confident	1	2	3	4	(5)	6	7	(8)	9	10	Completely confident

3. keep stress and worry from interfering with the things you want to do?

Not at all confident	1	2	3	4	5	6	(7)	(8)	9	10	Completely confident

4. follow your meal plan when you have to prepare or share food with other people who do not have diabetes?

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Not at all confident	1	2	3	4	5	6	(7)	8	9	10	Completely confident

5. choose the appropriate foods to eat when you are hungry (for example, snacks)?

Not at all confident	1	2	3	4	(5)	6	(7)	8	9	10	Completely confident

6. exercise at least 15 to 30 minutes a day, 4 to 5 most days of the week?

Not at all confident	1	2	3	4	5	(6)	7	8	9	10	Completely confident

7. know what to do when your blood sugar level goes higher or lower than it should be?

Not at all confident	1	2	3	4	5	6	7	(8)	9	(10)	Completely confident

8. judge when the changes in your health mean you should visit the doctor?

Not at all confident	1	2	3	4	5	6	(7)	8	(9)	10	Completely confident

9. control your diabetes so that it does not interfere with the things you want to do?

Not at all confident	1	2	3	4	5	(6)	7	(8)	9	10	Completely confident

D.C.

Diabetes Knowledge

Circle one answer for each line

1. How do you rate your understanding of:	Poor		Good		Excellent
a) overall diabetes care	1	2	3	4	5
b) ways to cope with stress	1	2	3	4	5
c) meal plan for blood sugar control	1	2	3	4	5
d) the role of exercise in diabetes care	1	2	3	4	5
e) medications you are taking	1	2	3	4	5
f) how to use the results of blood sugar monitoring	1	2	3	4	5
g) how diet, physical activity, and medicines affect blood sugar levels	1	2	3	4	5
h) prevention and treatment of high blood sugar	1	2	3	4	5
i) prevention and treatment of low blood sugar	1	2	3	4	5
j) prevention of long-term complications of diabetes	1	2	3	4	5
k) taking care of your feet	1	2	3	4	5
l) benefits of improving blood sugar control	1	2	3	4	5

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